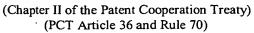
PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY





Applicant's or agent's file reference S-19	FOR FURTHER ACT	TON	See Form PCT/IPEA/416				
International application No.	International filing date (da	ay/month/year)	Priority date (day/month	/year)			
PCT/JP2005/006000	23.03.	23.03.2005 23		3.03.2004			
International Patent Classification (IPC) or national classification and IPC Int.Cl. F28F9/02 (2006. 01), B60H1/32 (2006. 01), F25B39/02 (2006. 01)							
Applicant SHOWA DENKO K.K.							
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.							
2. This REPORT consists of a total of			heet.				
3. This report is also accompanied by	y ANNEXES, comprising	;:					
a. a total of	sheets, as follows:						
sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).							
	,	which this Authority	considers contain an ame	ndment that goes			
			is indicated in item 4 of B				
Supplemental Bo							
b. a total of (indicate type and number of electronic carrier(s)) containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).							
4. This report contains indications relating to the following items:							
Box No. I Basis of the	of the report						
Box No. II Priority	·						
Box No. III Non-establis	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability						
Box No. IV Lack of unit	ack of unity of invention						
	d statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; and explanations supporting such statement						
Box No. VI Certain docu	ertain documents cited						
Box No. VII Certain defe	ertain defects in the international application						
Box No. VIII Certain obse	rvations on the internation	nal application					
Date of submission of the demand Date of completion of this report							
Date of submission of the demand							
16.09.2005 01.02.2006							
Name and mailing address of the IPEA/JP	Authorized officer		3M 3530				
Japan Patent Office SHOJI Hidefumi							
3.4.3 Kasumigaseki Chiyoda-ku Tokyo 100-8015 Janan		Telephone No. +81-3-3581-1101 Evt. 2277					

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2005/006000

Box No.	I	Basis of the report	•			
ı. W	the in	and to the language, this report is based on: International application in the language in which it was filed Installation of the international application into International search (Rules 12.3(a) and 23.1(b)) International search (Rules 12.3(a) and 23.1(b)) International preliminary examination (Rules 55.2(a) and/or 55.3(a))	, which is the language of a			
fur	nished	rd to the elements of the international application, this report is based on (replac to the receiving Office in response to an invitation under Article 14 are referred to in ot annexed to this report):				
V	the i	nternational application as originally filed/furnished	•			
	the d	escription:	·			
	page page page	s received by this Authority on	as originally filed/furnished			
.	the c Nos.	laims:	as originally filed/furnished			
	Nos. Nos.	received by this Authority on	any statement) under Article 19			
	ets/figs		as originally filed/furnished			
	ets/figs					
she	ets/figs	* received by this Authority on				
	a seq	uence listing and/or any related table(s) - see Supplemental Box Relating to Seque	nce Listing.			
3. 🗔	The a	the description, pages the claims, Nos. the drawings, sheets/figs the sequence listing (specify): any table(s) related to sequence listing (specify):				
4. 🗖	any table(s) related to sequence fisting (specify).					
		the description, pages				
		the claims, Nos.	: 			
		the drawings, sheets/figs				
		the sequence listing (specify).				
+ ***		any table(s) related to sequence listing (specify):	 .			
* If item	1 4 app	lies, some or all of those sheets may be marked "superseded."				

IAP11 Rec'd PC 196 28 9 5 2006

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/JP2005/006000

citations and explanations supporting such statement					
1. Statemen	t				
Novelty (N)		Claims	1-19	YES	
		Claims		NO NO	
Inve	ntive step (IS)	Claims		YES	
		Claims	1-19	NO NO	
Indu	strial applicability (IA)	Claims	1-19	YES	
		Claims		NO	

2. Citations and explanations(Rule 70.7)

D1:JP 2003-075024 A (Showa Denko K.K.) 2003.03.12, paragraph 148, figure 15

D2:JP 2002-340495 A (Showa Denko K.K.) 2002.11.27, paragraph 44, figure 5

D3:JP 06-241614 A (Sharp K.K.) 1994.09.02, paragraphs 21-27, 37-39, figures 1,4

The subject matters of claim 1-3, 6, 13-19 do not appear to involve an inventive step in view of Document 1, and Document 2, cited in the ISR. The skilled person in the art would easily conceive the idea of applying the closing member 20 provided with the guide 24 in D2 to the heat exchanger 1 disclosed in D1.

The subject matters of claim 4-5, 7-12 do not appear to involve an inventive step in view of Document 1, Document 2, and Document 3, cited in the ISR. A guide having an inclined end face and a guide whose center is deviated from a center of an inlet portion are, as shown in D3, widely known among the skilled person in the art.